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ABSTRACT

Student performance objectives for the North Carolina Senior High Assessment of Reading Performance (SHARP) and the Test of Proficiency in Computation Skills (TOPICS) are given. These minimum competency tests are structured in such a way as to facilitate the transference of school-based learning into everyday life. For example, students taking the math examination are asked to do the computations necessary to rent a car; students taking the reading examination are asked to correctly interpret a "Help Wanted" advertisement, and to make deductions concerning the scheduling of television programs. (LH)

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for
North Carolina Competency Testing Program
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and
SHARP Test

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June 20, 1978

North Carolina Department of Public Instruction/
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Raleigh/27611

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OBJECTIVE AND PERFORMANCE INDICATORS
FOR NORTH CAROLINA COMPETENCY TESTING PROGRAM:
MATHEMATICS OBJECTIVES AND PERFORMANCE INDICATORS
FOR TOPICS TEST
READING OBJECTIVES AND PERFORMANCE INDICATORS
FOR SHARP TEST

The North Carolina Competency Testing Program includes tests in Reading and Mathematics. The reading test is the Senior High Assessment of Reading Performance (SHARP) and the math test is the Test of Proficiency in Computation Skills (TOPICS).

Both SHARP and TOPICS involve the application of school related skills to practical situations which will be found in daily adult life. The practical situations are reflected in maps, charts, paragraphs, etc. which are called DISPLAYS. The questions accompanying each display are designed to test a student's ability to use his/her school related skills (or competencies) to effectively handle similar situations in life.

Thus the student is being tested at two levels to which we refer to as:

1) the COMPETENCY OBJECTIVES (or simply objectives) which are a broad range of school related skills necessary for living in society, and

2) the PERFORMANCE INDICATORS which are reflections of the actual situations to which these skills are to be applied.

Following this introduction is a listing of each objective and their accompanying indicators. The listings are provided to assist each teacher and school system in establishing remedial work for designated students.

These objectives and performance indicators for the Fall 1978 testing were prepared as the SHARP and TOPICS tests were being modified as a result of the trial testing. It should be noted, however, that new performance indicators may result from continued editing of the North Carolina revisions of SHARP and TOPICS.

It is expected that the objectives will remain constant while the indicators will change as the test is changed.

READING

NORTH CAROLINA COMPETENCY OBJECTIVES
AND PERFORMANCE INDICATORS

(SHARP OBJECTIVES AND PERFORMANCE INDICATORS)

June 20, 1978

Objective

1. The learner will demonstrate word knowledge and use contextual clues and abbreviations to determine word meaning.

Indicators

1.01 Given a classified ad, the learner will use contextual clues and abbreviations to obtain exact meaning of the writer.

1.02 Given a newspaper and/or magazine article, telephone directory, various application forms, the learner will use contextual clues for identifying unknown words and will interpret the meanings of abbreviations.

Objective

2. The learner will read and follow written directions accurately.

Indicators

2.01 Given an application form for an Auto Loan or similar application form, the learner will identify the proper placement of the given data on the application.

2.02 Given a library card or similar card on which personal statistics are to be printed, the learner will match information to the correct numbered space on the application.

2.03 Given an unemployment insurance claim form or similar form, the learner will use the given instructions, identify the data needed and identify correct placement of requested data on the form.

2.04 Given an employment application, change of address form, application to rent an apartment and/or similar forms, the learner will determine the correct placement of specific information on numbered blank spaces on the form.

2.05 Given an application for a social security card, or any similar application form the learner will follow the given instructions and will determine the proper placement of statistics on the form.

2.06 Given a set of "Do It Yourself" directions the learner will understand the given instructions for correctly performing the task.

2.07 Given warning labels (insect spray poison, medicine bottles, danger signals, etc.) the learner will understand given directions and answer specific questions.

2.08 Given a set of "Do It Yourself" directions, the learner will apply the proper sequence in answering questions.

Objective

3. The learner will read and select the main idea and related detail.

Indicators

3.01 Given passages from a sample driver's license test or similar paragraphs, the learner will determine the main idea and related details.

3.02 Given classified ads, or similar materials the learner will determine the main idea and related detail.

3.03 Given a magazine and/or newspaper article or similar reading passages, the learner will determine the main idea and related detail.

3.04 Given various kinds of warranties (automobile, vacuum cleaner, radio, refrigerator) the learner will determine the main idea and related detail.

3.05 Given a business and/or personal letter, the learner will determine the main idea and related detail.

Objective

4. The learner will read and classify information.

Indicators

4.01 Given various application forms, (library card, unemployment claim, employment application, charge account agreement, apartment rental application, etc.) the learner will classify information in order to determine the information required for proper completion of the forms.

4.02 Given a dictionary page, the learner will demonstrate use of classification of information such as, parts of speech, choosing the appropriate definition for words, etc.

4.03 Given a highway map, the learner will use map reading skills to identify various numbered highways, interstate highways, etc.

4.04 Given an Income Tax Form or similar document, the learner will use classification skills to distinguish between information such as joint return, single, dividends, etc. in order to facilitate correct placement of information.

Indicators

4.05 Given a recipe, the learner will answer questions regarding the order of the steps in preparation of food.

Objective

5. The learner will read and draw inferences from various reading materials.

Indicators

5.01 Given classified ads, or similar reading material, the learner will make inferences from a concise abbreviated information.

5.02 Given information of the form presented in TV Guide, the learner will draw inferences about various programs, time, and stations, etc.

5.03 Given a series of road signs, the learner will make appropriate response as to their meaning.

5.04 Given various magazine and newspaper articles, warranties, utility bill, etc., the learner will make appropriate inferences from these reading selections.

5.05 Given an index such as a telephone directory, catalogues, department store directory, repair manuals, etc. the learner will demonstrate the ability to obtain the required information.

Objective

6. The learner will read and draw conclusions.

Indicators

6.01 Given newspaper and/or magazine articles, the learner will read and draw conclusions to answer specific questions.

6.02 Given various types of application forms, the learner will draw conclusions in identifying correct placement of data on the forms.

6.03 Given various kinds of maps and charts, the learner will draw conclusions on locations, directions, etc. in answering specific questions.

Objective

7. The learner will compare and contrast various reading materials.

Indicators

7.01 Given information from a TV Guide, the learner will compare and contrast various programs, stations, time, etc.

7.02 Given a highway and/or street and freeway map, the learner will compare and contrast various numbered highways, streets, directions (N, S, E, W), etc.

7.03 Given a map large enough to include more than one time zone, the learner will determine differences in daily activities in various time zones.

Objective

8. The learner will read and organize information using various types of materials.

Indicators

8.01 Given various forms such as an unemployment insurance claim, charge account, apartment rental application, etc. the learner will identify the data needed in order to correctly complete the form.

8.02 Given a page from a TV Guide, the learner will select from the listings the correct time, channel and content of various programs.

8.03 Given a yellow pages index or a page from a telephone directory, the learner will organize the information provided to determine the correct answer to specific questions.

8.04 Given various types of maps, the learner will use the information provided on the maps to determine direction, routes, distances and various locations.

Objective

9. The learner will locate and apply information.

Indicators

9.01 Given an event listing such as a page from a TV Guide or similar schedule, the learner will demonstrate correct location and application of specific information by responding to specific questions.

9.02 Given an index or directory, the learner will locate specific information and solve information problems.

9.03 Given a series of maps, the learner will locate places, routes and other information in order to correctly respond to questions concerning locations, travel, directions, etc.

9.04 Given a page in the telephone directory, the learner will locate and apply various information for long distance, dialing direct. zip code, etc.

9.05 Given a document such as a utility bill, the learner will determine the amount of service, period of time the service covered, cost of service, etc.

Objective

10. The learner will interpret maps, charts, and pictures.

Indicators

10.01 Given various kinds of maps (highway, street, area code, etc.) the learner will use grid marks, map directions, time zones, street names, highway numbers, etc. in answering specific questions.

10.02 Given various highway signs, the learner will explain the meaning of the pictorial signs.

Prepared by:

Division of Reading
June 20, 1978

MATHEMATICS

NORTH CAROLINA COMPETENCY OBJECTIVES
AND PERFORMANCE INDICATORS

(TOPICS Objectives and Performance Indicators)

June 20, 1978

Objective

1. The student will be able to compute using whole numbers.

Indicators

1.01 The student will be able to add whole numbers with as many as four digits when presented in a horizontal or vertical format.

1.02 The student will be able to subtract whole numbers with as many as five digits when presented in a horizontal or vertical format.

1.03 The student will be able to multiply two or three digit whole numbers involving renaming when presented in a horizontal or vertical format.

1.04 The student will be able to divide whole numbers involving as many as 4 digits.

Objective

2. The student will be able to compute using fractions.

Indicators

2.01 The student will be able to add whole numbers, mixed numbers and common fractions involving like and unlike denominators when presented in a horizontal or vertical format.

2.02 The student will be able to subtract whole numbers, mixed numbers and common fractions involving like and unlike denominators when presented in a horizontal or vertical format.

2.03 The student will be able to multiply whole numbers, mixed numbers and common fractions when presented in a horizontal or vertical format.

Objective

3. The student will be able to compute using decimals.

Indicators

3.01 The student will be able to add decimal numbers when presented in a horizontal or vertical format.
NOTE: As many as 4 digits with three decimal places.

3.02 The student will be able to subtract decimal numbers when presented in a horizontal or vertical format.
NOTE: As many as 4 digits with three decimal places.

3.03 The student will be able to multiply decimal numbers when presented in a horizontal or vertical format.
NOTE: As many as 4 digits with three decimal places.

3.04 The student will be able to divide decimal numbers in both the divisor and the dividend.

Objective

4. The student will be able to compute using percents.

Indicators

4.01 The student will be able to find the percent of a given number, such as 10% of 80.

4.02 Given two numbers, the student will be able to find what percent one number is of another, such as 10 is what percent of 80?

Objective

5. The student will be able to solve problems involving money matters.

Indicators

5.01 Given a bill of a sales transaction, such as a restaurant bill, the student will be able to compute subtotals and totals, including tax.

5.02 Given the total amount of a bill and amount of money available to pay the bill, the student will be able to compute the change involved.

5.03 Given a rent receipt showing more than one months' rent, the student will be able to compute the increase or decrease in the monthly rate.

5.04 When given varying amounts of monthly rent, the student will be able to compute the average rent per month.

5.05 Given the monthly rent, the student will be able to compute the balance to be paid after paying a fractional part of the rental amount.

5.06 Given a specified amount of money, the student will be able to write that amount in words.

5.07 Given the hourly wage rate and the total number of hours worked, the student will be able to compute the total wages.

5.08 Given a cost per time interval, the student will be able to determine the time interval between 2 given times and compute the total cost for that interval.

5.09 Given a list of items and cost of each item, the student will be able to determine a subtotal prior to tax being added.

5.10 Given a list of items and cost of each item, the student will be able to determine the total bill, including tax.

5.11 Given a list of items and cost of each item, the student will be able to compare the costs of various clusters of items contained on the list.

5.12 Given the cost of a particular item, and the tax rate expressed as a percent, the student will be able to compute the amount of tax charged on the particular item.

5.13 Given a list of admission price categories to a particular event, the student will be able to compute the total cost of multiple tickets which fall into the various categories.

5.14 Given an advertisement involving a table of sizes, prices and tax, the student will be able to determine the cost of a specific item from the advertisement.

5.15 Given an advertisement involving a table of sizes, prices and tax, the student will be able to determine the amount of tax charged for one or more of the items from the advertisement.

5.16 Given a partially completed Income Tax Form 1040 A, the student will be able to use computational skills involving whole numbers to make entries on the specified lines in the income tax form.

5.17 Given a utility bill which covers at least 1 month's service, the student will be able to determine the amount spent for this utility for a year.

5.18 Given an electric bill showing the total number of kilowatt hours used, and the total number of days encompassed by the bill, the student will be able to determine the average number of kilowatt hours used per day.

5.19 Given a statement of wages showing hours worked, salary earned and the various deductions for a given period such as a week, the student will be able to determine the hourly rate of earnings.

5.20 Given a statement of wages showing hours worked, salary earned and the various deductions for a given period such as a week, the student will be able to determine the total amount of State and Federal taxes deducted for that given period.

5.21 Given a statement of wages showing hours worked, salary earned and the various deductions for a given period such as a week, the student will be able to determine total earnings for a fraction or multiple part of the given period such as 4 weeks.

5.22 Given an installment buying situation including cash price of a given item, shipping and handling charges, the student will be able to determine the total cost of an item including shipping and handling charges.

5.23 Given an installment buying situation including cash price of a given item, shipping and handling charges, the student will be able to determine the total costs for a given time period when using the installment plan specified.

5.24 Given an installment buying situation including cash price of a given item, shipping and handling charges, the student will be able to determine the difference between the cash price and the price paid when using the installment plan.

5.25 Given a checkbook record, the student will be able to use the appropriate operation to reflect a withdrawal or a deposit.

5.26 Given a checkbook record, the student will be able to use the appropriate operation to reflect the writing of one or more checks against this account and show the balance after every transaction.

5.27 Given a credit card statement showing the payment due date, monthly finance charge, credit limit, and total charges, the student will be able to determine the number of days he or she has to pay the bill after receiving it.

5.28 Given a credit card statement showing the payment due date, monthly finance charge, credit limit, and total charges, the student will be able to compute the finance charge for late payment when given the percentage and the balance due.

5.29 Given a price list such as that of a menu from a fast-food restaurant, the student will be able to compute the total cost of a multiple number of items from the price list.

5.30 Given a price list of items such as a menu from a fast-food restaurant, the student will be able to compute the difference between the cost of two separate items from the list.

Objective

6. The student will be able to solve problems involving measurement.

Indicators

6.01 Given a recipe, the student will be able to make the necessary computations for each ingredient to expand or decrease the recipe by a given factor.

6.02 Given a time-card with entries for various days, the student will be able to compute time intervals when given any two entries from the time-card.

6.03 Given the total number of hours worked, and the hourly wage rate, the student will be able to compute the total earnings.

6.04 Given a situation involving cost per time interval, the student will be able to determine time elapsed between two given times and compute the cost for the total time elapsed.

6.05 Given the dimensions of a geometric figure, such as a square, the student will be able to find the area.

6.06 Given the dimensions of a geometric figure, such as a square, the student will be able to determine the number of tiles of a given dimension that would be needed to tile the floor.

6.07 Given the cost per tile and the number of tiles needed to tile a floor, the student will be able to compute the total cost of tiling the floor.

6.08 Given the dimensions of a geometric figure, such as a square, the student will be able to solve problems relating to its perimeter.

6.09 Given a series of temperature readings for specific time intervals, the student will be able to compute the average temperature for those intervals.

6.10 Given two temperature readings on a themometer graduated in degrees Celsius, the student will be able to determine the amount of increase or difference between the two readings.

6.11 Given a situation involving a time schedule, such as a movie schedule, the student will be able to compute the difference between two given times.

6.12 Given a transportation schedule, such as a bus schedule, the student will be able to compute the time it takes to travel between two points included on the schedule.

6.13 Given a transportation schedule, such as a bus schedule, the student will be able to determine differences between two times presented on the schedule.

Objective

7. The student will be able to use geometric ideas in solving everyday problems.

Indicators

7.01 Given a geometric figure, such as a square, with the dimensions indicated, the student will be able to find its area.

7.02 Given a geometric figure, such as a square, with the dimensions indicated, the student will be able to determine the area of the geometric figure using more than one unit of measure.

7.03 Given a geometric figure, such as a square, with known dimensions the student will be able to find its perimeter.

Objective

8. The student will be able to read, interpret and use maps, graphs, charts, and tables.

Indicators

8.01 Given a standard roadmap, the student will be able to determine driving distance between 2 cities when certain routes are specified.

8.02 Given a highway map and a scale, such a 1" = 30 miles, the student will be able to find the approximate number of miles between 2 cities that are 3" apart on the map.

8.03 Given an advertisement involving a table of sizes, item costs and tax, the student will be able to determine the total cost of single and multiple items from the table.

8.04 Given a transportation schedule, the student will be able to determine a method for finding the amount of time it takes to get from one location to another.

8.05 Given a transportation schedule and specified time of arrival at a particular location, the student will be able to determine departure time that will enable him/her to arrive at the desired destination on time.

Objective

9. The student will be able to apply knowledge of probability and statistics to everyday situations.

Indicators

9.01 Given a series of temperature readings for specified time intervals, the student will be able to compute the average temperature for those intervals.

9.02 Given varying amounts for monthly rent, the student will be able to compute the average per month.

9.03 Given an electric bill showing the total number of kilowatt hours used, and the total number of days encompassed by the bill, the student will be able to determine the average number of kilowatt hours used per day.

Objective

10. The student will be able to estimate answers to problem.

Indicators

10.01 Given a highway map and a scale, such as 1" = 30 miles, the student will be able to find the approximate number of miles between two cities.

10.02 Given the distance between two cities and the rate of travel, the student will be able to determine the approximate driving time for the trip.

10.03 Given an electric bill showing the total number of kilowatt hours used, and the total number of days encompassed by the bill, the student will be able to determine the approximate number of kilowatt hours used per day.

Objective

11. The student will be able to solve problems involving addition, subtraction, multiplication, and division of whole numbers, fractions, decimals and percent.

Indicators

11.01 Given a record of daily sales for a one-week period in table form, the student will be able to determine the best day of sales.

11.02 Given a record of daily sales for a one-week period in table form, the student will be able to determine the total sales for a one-week period.

11.03 Given a record of daily sales for a one-week period in table form, the student will be able to determine a given percentage of the total sales.

11.04 Given a record of daily sales for a one-week period in table form, the student will be able to determine the difference between any two different days' sales.

11.05 Given problems involving distance, rate and time, the student will be able to determine any one of the three variables when the other two variables are given.

11.06 The student will be able to use his/her knowledge of percent to solve problems involving finance charges, sales tax and discounts.

Prepared by:

Division of Mathematics
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